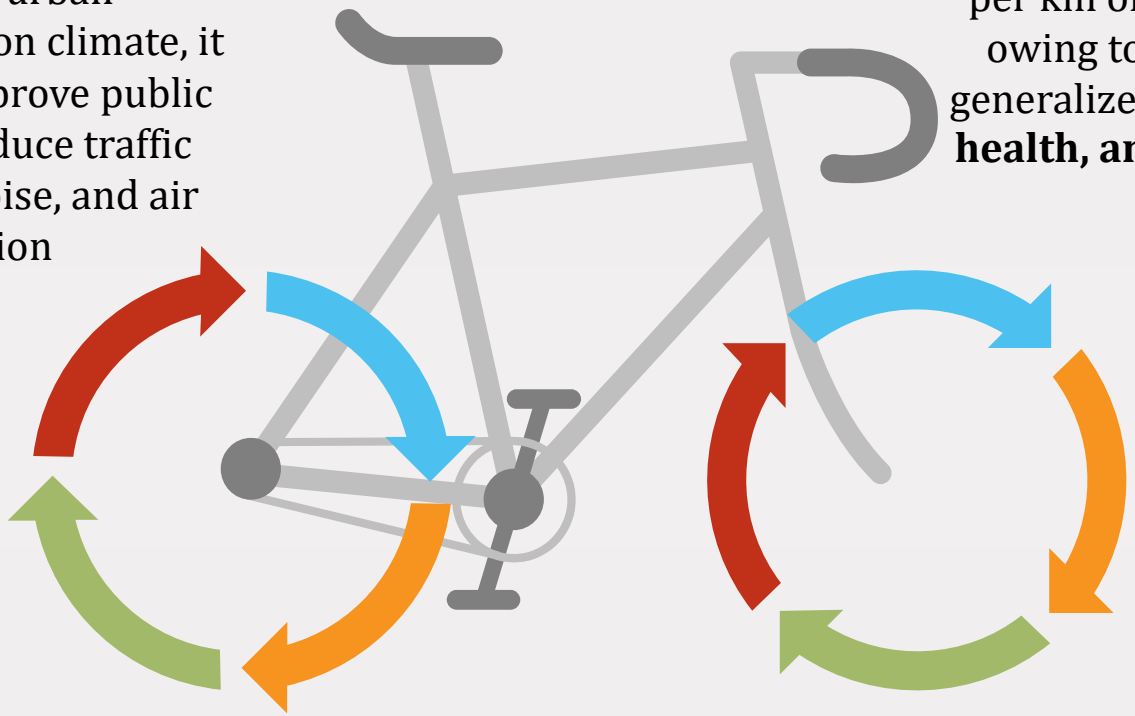
Evidence-driven arguments on Prioritizing Bike Infrastructure for Urban Areas

In addition to reducing the impact of urban transportation on climate, it will help to improve public health and reduce traffic congestion, noise, and air pollution

Annual benefit of €0.4M per km of bicycle lane owing to changes in generalized **travel cost, health, and accidents.**



Provision of dedicated bicycle infrastructure quite substantially reduces the generalized cost of bicycling. Cycleways (bicycle paths in own trace) **reduce the generalized cost by 20%.**

On residential and medium roads, bicycle lanes, whether protected or just painted, **reduce the cost rate by 14% and 22%, respectively**

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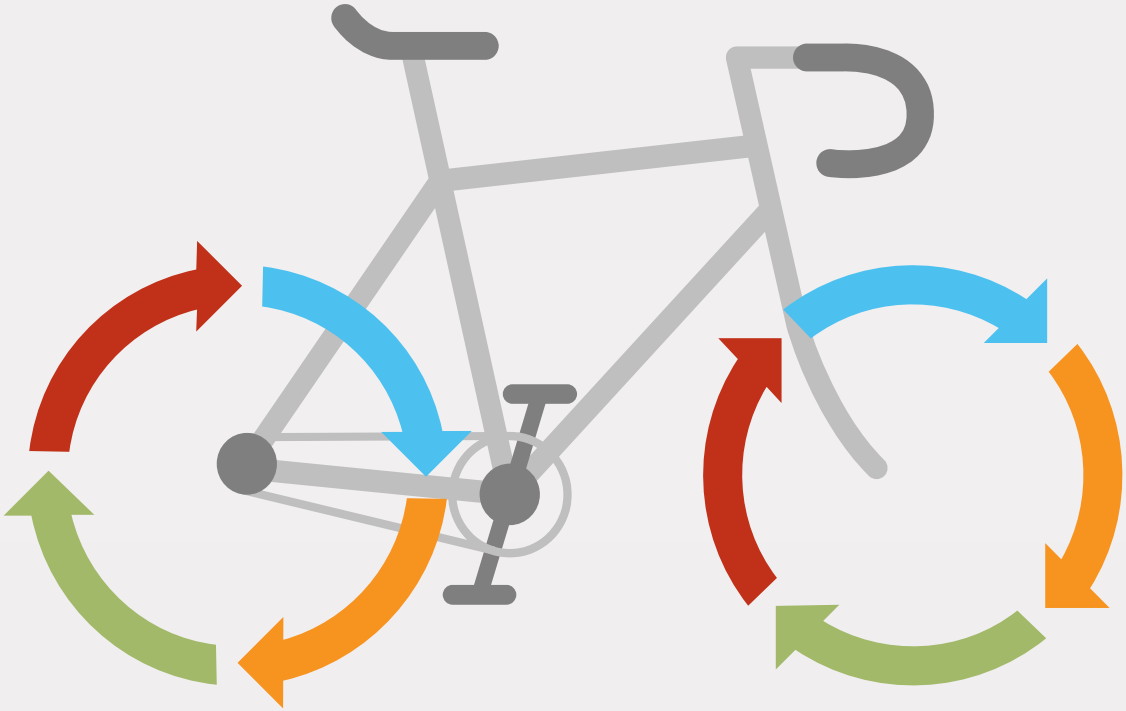

Bicycling is associated **with both health benefits and accident risk**, e.g.,the official Danish guidelines for cost–benefit analysis suggest **a net external benefit owing to health and accidents of 0.91 EUR per bicycle km (10).** Applying this figure, we estimate the welfare loss induced by removing the bicycle lane network through health and accidents to be €435.3M per year. In total, **we find a loss of €609.4M per year or €0.427M annually per km of bicycle lane if all bicycle lanes were removed.**

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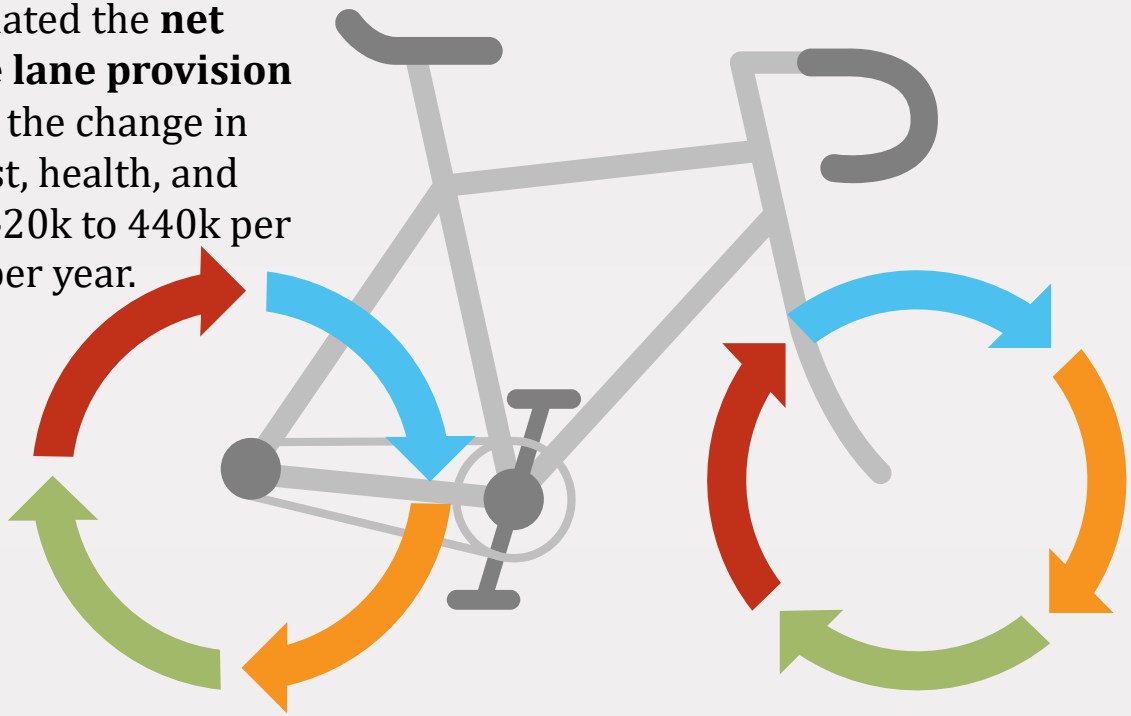
we have calculated the **net benefit of bicycle lane provision** associated with the change in generalized cost, health, and accidents to be €420k to 440k per lane km per year.



Within 4 months, an average of 11.5 km of provisional pop-up bike lanes have been built per city and the policy has increased cycling between 11 and 48% on average. We calculate that the new infrastructure **will generate between $1 and $7 billion in health benefits per year if cycling habits are sticky.**